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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,799	09/16/2005	Hitoshi Kotajima	107348-00474	6294
4372	7590	05/02/2008		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			EXAMINER DESAL, NAISHADH N	
			ART UNIT 2834	PAPER NUMBER
			NOTIFICATION DATE 05/02/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/528,799

**Applicant(s)**

KOTAJIMA, HITOSHI

**Examiner**

NAISHADH N. DESAI

**Art Unit**

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 3/23/2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kakinuma et al (US 6091172) and Kikuchi et al(US 6030260) and in view of Terakado et al (US 5914546)

2. As per independent claim 1:

An outer rotor type multi-pole generator stator in which a plurality of coils are wound via a bobbin around plurality of projecting poles provided on an outer periphery of a stator core, and [see abstract lines 1-4 of Kakinuma et al]  
a plurality of connecting terminals [abstract lines 4-5 of Kakinuma et al] manufactured from a conductive metal [Col 1 lines 14-15 of Kakinuma et al] are fitted into and fixed to a plurality of fitting holes defined in the bobbin inwardly of the coils relative to a radial direction of the stator core [abstract lines 5-6 of Kakinuma et al], each connecting terminal having one end thereof connected to an external conductor and having the other end thereof connected by fusing to a lead wire extending from the coil [abstract lines 11-17 and Fig 8B of Kakinuma et al],

wherein each of the connecting terminals comprises an external conductor connection terminal portion [Fig 8B of Kakinuma et al] fitted into and fixed to the fitting hole, wherein one end thereof is connected to the external conductor and projects from the fitting hole [Fig 9 of Kakinuma et al], a flat connecting plate portion [Col 1 lines 55-57 of Kakinuma et al] having one end thereof connected at right angles to the other end of the external conductor connection terminal portion and extending toward a radial inner side of the stator [Fig 8A and B of Kakinuma et al],

and

a clamping plate portion connected to the connecting plate portion wherein the lead wire is held between the clamping plate portion and the other end portion of the connecting plate portion and connected by fusing [Fig 8A-D, Col 1 line 60 of Kakinuma et al], and

wherein a channel or a through hole [Fig 4 of Kikuchi et al shows the bobbin to have two holes wherein one can be used for the electrode] is defined in the bobbin and has one end thereof facing said other end of the connecting plate portion [Fig 3 and Col 3 lines 59-62 of Kakinuma et al] and a diameter larger than a diameter of the fitting hole wherein one electrode of pair of electrodes extends into the channel or through hole [Fig 3 and Fig 8A-D of Kakinuma et al].

Kakinuma et al disclose the device per claim one above. Kakinuma et al do not disclose the bobbin to have two holes of channels wherein one of the channels may be used to insert an electrode. Kikuchi et al teaches a bobbin having two holes wherein one can be used to insert an electrode to fuse the connecting terminal. Kikuchi et al do not explicitly teach the use of two electrodes for fusing the terminals. Terakado et al teaches the use of two electrodes to fuse terminals (Col 6 ll 15-44). It would have been obvious at the time the invention was made to a person having ordinary skills in the art to modify the device of Kakinuma et al and Kikuchi et al to have a bobbin with two channels and to use the channels to insert electrodes for fusing the connecting terminals as Terakado et al teaches. The motivation to do so would be that it would eliminate the need to peel off the insulating skin of the magnet wire [Col 1 lines 23-35 of Kikuchi et al] and allow for the number of steps of the connecting operation to be reduced and for an easier operation of connecting the coil to the connecting terminal [Col 1 lines 36-40 of Kikuchi et al] and it would also provide for terminal which has a stable connection force and high reliability [Col 2 ll 1-5 of Terakado et al].

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kakinuma et al, Kikuchi et al as and Terakado et al applied to claim 1 above, and further in view of Baker-Bachman et al (US 2004/0061390).

3. As per dependent claim 2:

Kakinuma et al, Kikuchi et al and Terakado et al teaches the device as applied to claim 1 above. Kakinuma et al, Kikuchi et al and Terakado et al do not teach the connecting terminals to be in a trapezoidal shape towards the radially inner side of the stator.

Baker-Bachman et al in paragraph 0022 clearly discloses the use of many shapes for terminals including a trapezoidal or polygonal shape.

It would have been obvious at the time the invention was made to a person having ordinary skills in the art to modify the device of claim 1 above with the terminals of Baker-Bachman et al to have a trapezoidal shape wherein the width is decreasing towards the radially inner side of the stator. The motivation to do so would be that it would allow for easier assembly and manufacturing of the motor.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kakinuma et al, Kikuchi et al, Terakado et al in view of Baker-Bachman et al (US 2004/0061390) as applied to claims 1 and 2 above, and further in view of Beakes et al (US 5755021)

4. As per dependent claim 3:

Kakinuma et al, Kikuchi et al and Beakes et al teaches the device and steps of making the motor as applied to claims 1 and 2 above. Kakinuma et al, Kikuchi et al, Terakado et al and Beakes et al do not explicitly teach to cut off an unwanted portion of the lead wire

projecting from the terminal. Beakes et al discloses the method of cutting off unwanted portions of the lead wire [Col 4 lines 40-45].

It would have been obvious to a person having ordinary skills in the art at the time the invention was made to cut off the unwanted portions of the lead wire. The motivation to do so would be that it would allow for more uniform packaging of the motor parts and reduce material and cost.

This limitation is a product by process limitation. The method of forming the device is not germane to the issue of patentability of the device itself. This limitation does not structurally distinguish the claim over the prior art.

5. As per dependent claim 4:

The outer rotor type multi-pole generator stator according to claim 1, wherein each opposing side surface of the external conductor connection terminal portion includes a barb extending away therefrom (Fig 7,51 of Kikuchi et al).

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for details.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Response to Arguments***

8. Applicant's arguments filed 1/9/2008 have been fully considered but they are not persuasive. Regarding applicant's argument that cited art does not teach electrodes to be used for fusing the terminals are found non persuasive. Examiner has cited new art which clearly teaches the use of electrodes to fuse terminals. Regarding applicant's argument relating to the size of holes or bores, examiner would like to point out that it is very well known in the art to adjust the size of a hole to ensure a proper fit of the electrodes depending on the device's manufacturing and overall assembly requirements.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NAISHADH N. DESAI whose telephone number is (571)270-3038. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 2834

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Naishadh N Desai  
Patent Examiner

/Darren Schuberg/  
Supervisory Patent Examiner, Art Unit 2834